SEQUENCE LISTING

<110> ASHIKARI, MOTOYUKI
      MATSUOKA, MAKOTO
      LIN, SHAOYANG
      YAMAMOTO, TOSHIO
      NISHIMURA, ASUKA
      TAKASHI, TOMONORI

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Lys Ala Thr Ala Pro Pro Pro Trp Pro Pro Ser Ala Ser Ser Ala Ser
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Phe Leu Asp Asp Leu Gly Asp Leu Gly Ile Ala Pro Leu Ile Arg Ala
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Leu Asp Val Ile Thr
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Ser Gly Val Leu Ala Phe Ala Asp Gly Val Phe His Gly Ile Leu Ser
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Arg Thr Pro Ala Met Gly Pro Val Leu Ile Tyr Pro Met Asn Arg Asn
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Lys
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Val Leu Tyr Pro Ser Arg Pro Ala Asp Ile Ala Ala Leu Leu Arg Ala
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Ser Cys Ala Arg Pro Ala Pro Phe Ala Val Ser Ala Arg Gly Cys Gly
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Trp Thr Asp Tyr Leu His Leu Thr Val Gly Gly Thr Leu Ser Asn Ala
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Glu Gln Val Arg Met Ala Val Leu Leu Met Leu Asn Cys Phe Val Lys
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Ala Thr Ala Pro Pro Pro Trp Pro Pro Ser Ala Ser Ser Ala Ser Phe
20                  25                  30                  35

ctc gac gac ctc ggc gac ctc ggc atc gcg ccg ctc atc cgc gcc gac       200
Leu Asp Asp Leu Gly Asp Leu Gly Ile Ala Pro Leu Ile Arg Ala Asp
                40                  45                  50

gag gcg gcc acc gcg cgc gcc tcc gcc gac ttt ggc aac ctc tcc gtc       248
Glu Ala Ala Thr Ala Arg Ala Ser Ala Asp Phe Gly Asn Leu Ser Val
                55                  60                  65

gcc ggc gtc ggg gcg cct cgg ctc gcc gcc gcc gtg ctc tac ccg tcg       296
Ala Gly Val Gly Ala Pro Arg Leu Ala Ala Ala Val Leu Tyr Pro Ser
            70                  75                  80

cgc ccc gcc gac atc gcc gcg ctg ctg cgc gcg tcg tgc gca cgc ccg       344
Arg Pro Ala Asp Ile Ala Ala Leu Leu Arg Ala Ser Cys Ala Arg Pro
    85                  90                  95
```

```
gcg ccg ttc gcg gtg tcc gcg cgg ggg tgt ggc cac tcg gtg cgc ggc      392
Ala Pro Phe Ala Val Ser Ala Arg Gly Cys Gly His Ser Val Arg Gly
100                 105                 110                 115

cag gcc tcc gcg ccc gac ggc gtc gtc gtc gac atg gcg tcg ctc ggc      440
Gln Ala Ser Ala Pro Asp Gly Val Val Val Asp Met Ala Ser Leu Gly
                120                 125                 130

cgc ctg cag ggc ggc ggc gcg cgg cgc ctc gcc gtg tca gtg gag ggg      488
Arg Leu Gln Gly Gly Gly Ala Arg Arg Leu Ala Val Ser Val Glu Gly
                135                 140                 145

cgg tac gtc gac gcc ggc ggc gag cag ctg tgg gtg gac gtg ctg cgc      536
Arg Tyr Val Asp Ala Gly Gly Glu Gln Leu Trp Val Asp Val Leu Arg
                150                 155                 160

gcg tcc atg gcg cac ggg ctc acg ccg gtg tcg tgg aca gac tac ctc      584
Ala Ser Met Ala His Gly Leu Thr Pro Val Ser Trp Thr Asp Tyr Leu
        165                 170                 175

cac ctc acc gtc ggc ggc acg ctg tcc aac gcc ggc atc agc ggc cag      632
His Leu Thr Val Gly Gly Thr Leu Ser Asn Ala Gly Ile Ser Gly Gln
180                 185                 190                 195

gcc ttc cgc cat ggc ccc cag att tcc aac gtg cta gag ctc gac gtc      680
Ala Phe Arg His Gly Pro Gln Ile Ser Asn Val Leu Glu Leu Asp Val
                200                 205                 210

atc acc ggtacgtaga tccatcacat ctactaagac acgcgccgcc atgatcgagg      736
Ile Thr


taattaaggt ataggtgttt tgacgtatac atgtatctgc a ggt gtc ggg gag atg      792
                                             Gly Val Gly Glu Met
                                                     215

gtg acg tgc tcg aag gag aag gcg ccg gac ctg ttc gac gcg gtg ctg      840
Val Thr Cys Ser Lys Glu Lys Ala Pro Asp Leu Phe Asp Ala Val Leu
        220                 225                 230

ggc ggg ctg ggg cag ttc ggc gtc atc acg cgg gcg cgc atc ccg ctc      888
Gly Gly Leu Gly Gln Phe Gly Val Ile Thr Arg Ala Arg Ile Pro Leu
235                 240                 245                 250

gcg ccg gcg ccg gcg agg gcg cgg tgg gtg cgg ttc gtg tac acg acg      936
Ala Pro Ala Pro Ala Arg Ala Arg Trp Val Arg Phe Val Tyr Thr Thr
                255                 260                 265

gcg gcg gcg atg acg gcc gac cag gag cgc ctc atc gcc gtc gat cgc      984
Ala Ala Ala Met Thr Ala Asp Gln Glu Arg Leu Ile Ala Val Asp Arg
                270                 275                 280

gcc ggc ggc gcc ggc gcg gtg ggc ggg ctg atg gac tac gtc gag ggc     1032
Ala Gly Gly Ala Gly Ala Val Gly Gly Leu Met Asp Tyr Val Glu Gly
        285                 290                 295
```

```
tcg gtc cac ctg aac cag ggc ctg gtc gag acc tgg cgc acg cag ccg      1080
Ser Val His Leu Asn Gln Gly Leu Val Glu Thr Trp Arg Thr Gln Pro
    300                 305                 310

cag ccg cct tcg ccg tcc tcc tcc tcc tcc tca tcc ttc ttc tcc gac      1128
Gln Pro Pro Ser Pro Ser Ser Ser Ser Ser Ser Ser Phe Phe Ser Asp
315             320                 325                 330

gcc gac gag gcc cgc gtc gcc gcg ctc gcc aag gag gcc ggc ggc gtg      1176
Ala Asp Glu Ala Arg Val Ala Ala Leu Ala Lys Glu Ala Gly Gly Val
                335                 340                 345

ctg tat ttc ctc gag ggc gcc atc tac ttc ggc ggc gcc gcc ggg ccg      1224
Leu Tyr Phe Leu Glu Gly Ala Ile Tyr Phe Gly Gly Ala Ala Gly Pro
            350                 355                 360

tcc gcc gcc gac gtt gac aag gtatactagc tagctactag cttgctctgc         1275
Ser Ala Ala Asp Val Asp Lys
            365
```

gctgcgccga ccagagcggg tcccacctcg tgatgatggc gggaacaact aagctgcaaa   1335

aacttttggc gccacctggg gcttacgctt acgcacgcat gcaattaagg gggtgttcag   1395

atcgggctgc ccatgtcaca tcggatgttt agacgctaat ttagagtatt aaacatagac   1455

taataaaaaa actaatttca taaatgagag ttatccgcga gacgaatttt ttaagcacaa   1515

ttaatctata attataaaaa gtttactgta gcatcacatt gtcaaaatca tgatataatt   1575

agactcaaag attcgtctca tgaattagtc caagaatata gaatgtgttt tataattagt   1635

gtatgtttat tagtatccaa acatccgatg tgatatggac ttagaataag ttttccaaac   1695

aggacctaac ggtgcatgaa attgaagtct cttgcgccgt cgacatcgtc gtacttggcc   1755

taccactttt gtctgccacg cgatgcacct ctcgctatca cacacctaac tggaagtaat   1815

taaataatta ttcgattctg tgttaatttt tttttatctt ccttagttct cggagagaca   1875

aagattagat actatagtag caacttagta agctagtata tggagtatta ggttagtcgc   1935

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ttagctactt atggtgaaaa ctttttcgtc caaaacagtg aaaagcatgc atgctagtgt   2055

aggtagtagc taccaggacg aattatatca ttaacagtat ttgtagcaca tcaaggaaaa   2115

acttgtcttt ttaaacactg ttacagtctt cagaacgcac aactttaaca ggtattttg   2175

tattatattt ttttaaaaaa aataaaggta ataaaattat ggtattgtaa aagtatattt   2235

ttaaggaaaa tcatataacc aatcaaaagt ttatgaagat atacatattg atgttcaaag   2295

ttactaaaag ttgacttaaa catcacattt tcatcttgac caaagagggt tcatatatat   2355

actccctcaa ttttaaaata taagcatttc taattatatg catctagaca aatacatata   2415

```
aatatacttt attttttaaa gtgagggagt atcaattttg agcatgtagc tagactagat   2475

tagtgtatgt ctacgcacat atctgttgat ctgcacaaaa ctactactca tctatcctaa   2535

aatataagaa tttaaaattg gatgggacat accctaatac aatgaatcta gacatggaca   2595

tatactagta ataccatgta ctatctccat cccaaaataa gttcactttt catccatctc   2655

atacatatac caatagaaag tactaaaaat ttcggttatt ctctattttc acaaactccg   2715

atgcaatgat tattttaaaa ataaacttat tttagaataa atggaatgag caaaatataa   2775

acttattacg ggactgagga attagagctt tgccagaaag aaatcagcat cgccagcttg   2835

gacctaccat ccatgcatgc atcatgtggc cattgacaca tcacatagta tgtgctagct   2895

agctagcttt tgatcatagt tacatgtatc tagctaggct agaagctgga aaccgatgga   2955

tatgatggat ctctcatgga tgacaggcca gccaaagatc tgtgcgccac tagatacagt   3015

gcatgcatca gcttgtatgg ttataaccct agctagccag ctttagcaca cacatgcata   3075

tgcatgatga gcccccatct tttgcaacac gaccgaccaa ctatgttggc catatataga   3135

tagctagcta gttattccat gcatatacag tttgcatttc ctagctatag cttttgctat   3195

gtgatccgag aagatcctgc atgcccacac gtgacacgtc acacacacat gtggacaaag   3255

tactgcctca ctttatcctt gcatgacgtc acgtcgccac ctgtccatcc acgctgctag   3315

tgctggcaaa attaataact cgatcaaatt tcggtgatct ctctgcaaag aatttgatga   3375

attttaccaa catatatgct ttaatttctt tgtttgattt tatttgcag agg atg gat   3433
                                                        Arg Met Asp
                                                            370
```

```
gtg ctg cgt cgc gag ctg cgg cac gag cgc ggg ttc gtg ttc gcg cag   3481
Val Leu Arg Arg Glu Leu Arg His Glu Arg Gly Phe Val Phe Ala Gln
        375             380             385

gac gtg gcg tac gcc ggg ttc ctg gac cgc gtc cac gac ggc gag ctc   3529
Asp Val Ala Tyr Ala Gly Phe Leu Asp Arg Val His Asp Gly Glu Leu
    390             395             400

aag ctc cgc gcc gcg ggg ctc tgg gac gtg ccg cac cca tgg ctg aac   3577
Lys Leu Arg Ala Ala Gly Leu Trp Asp Val Pro His Pro Trp Leu Asn
405             410             415             420

ctg ttc ctc ccc cgc tcc ggc gtc ctc gcc ttc gcc gac ggc gtc ttc   3625
Leu Phe Leu Pro Arg Ser Gly Val Leu Ala Phe Ala Asp Gly Val Phe
                425             430             435

cac ggc atc ctc agc cgc acc ccc gcc atg ggc ccc gtc ctc atc tac   3673
His Gly Ile Leu Ser Arg Thr Pro Ala Met Gly Pro Val Leu Ile Tyr
            440             445             450
```

```
ccc atg aac cgc aac aag taataataat aataaacagc tttactacat        3721
Pro Met Asn Arg Asn Lys
        455
```

```
atacacatgt atataatttt tacggggtgg attttttcgt tcaaaatgac gatccctcat        3781
```

```
attgtgcgtg tcgtctgaaa acttattaaa atgtttaaat aaaaaattaa tatgatacat        3841
```

```
aaatatatta tatatcacta tataaacatt ataatcttaa actcaacttg cacaagtagt        3901
```

```
aaaaaaacaa atttgactgc aaatagtgtg tactaagtta tttatttact tatgctagta        3961
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```
tgctacttga atttaaacgt acatatttat gaagtggtat attatatatt tccagagtat        4021
```

```
ttttatggtt ctttttnnnnn nnnnnnnnnn nnnnnnnnnn ncttgaagga tgaatagact        4081
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```
ttccttaatt ttaacatata tggtggtaac taaacataca cacacgtgga tatgtttcag        4141
```

```
g tgg gac agt aac atg tcg gca gtg atc acc gac gac gac ggt gac gag        4190
  Trp Asp Ser Asn Met Ser Ala Val Ile Thr Asp Asp Asp Gly Asp Glu
    460                 465                 470
```

```
gtg ttc tac acg gtg ggg atc ctg cgg tcg gcg gcg gcg gcc ggc gac        4238
Val Phe Tyr Thr Val Gly Ile Leu Arg Ser Ala Ala Ala Ala Gly Asp
475                 480                 485                 490
```

```
gtg ggg agg ctg gag gag cag aac gac gag atc ttg ggt ttc tgc gag        4286
Val Gly Arg Leu Glu Glu Gln Asn Asp Glu Ile Leu Gly Phe Cys Glu
                495                 500                 505
```

```
gtg gcc ggg ata gcc tac aag cag tac ctg cct tac tac ggc agc cag        4334
Val Ala Gly Ile Ala Tyr Lys Gln Tyr Leu Pro Tyr Tyr Gly Ser Gln
            510                 515                 520
```

```
gca gag tgg cag aag cgg cac ttc ggt gcc aag ctc tgg cca aga ttc        4382
Ala Glu Trp Gln Lys Arg His Phe Gly Ala Lys Leu Trp Pro Arg Phe
        525                 530                 535
```

```
gtg cag cgg aag agc aag tat gat cca aag gcc atc ctg tcc cgt ggc        4430
Val Gln Arg Lys Ser Lys Tyr Asp Pro Lys Ala Ile Leu Ser Arg Gly
    540                 545                 550
```

```
cag ggg att ttc acg tca cca ctc gca tgaaatgaca catgtatgca        4477
Gln Gly Ile Phe Thr Ser Pro Leu Ala
555                 560
```

```
aatgcatatc tacatgcgta tatatacacg tatatatacg tatgtatgca tacacatatg        4537
```

```
ggtgtactgt gcatacgtta tagcacactg cagctaatta agcttgacag ggggagatcg        4597
```

```
atcaatggac aatgctctag tcaagctaat ataataatg gagtagtagt atatatgtag        4657
```

```
tgcgagataa ttaagtagtg tgtttgccta ctaaaaggag aggcaaagta gtactgtgat        4717
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gcatgcatgc caactaatag gtgataagta cgtgtgtgtg ccgcatgta tgattagaag        4777
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aagttggttt ttaattaatt aattaggtca tgtatgtaaa tatatagtac agtactacgt        4837
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actactagtg tactaccagc caatttgcat gcatgcatgg atgccttcat atgcatgtcg   4897

atctcaaacg tacggcatgc ttgaatgcat catgatgcat atctatcgtc gtcttgtggg   4957

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catggccgcc gtcggcttcg tccgcctcct tcctcgacga cctcggcgac ctcggcatcg   180

cgccgctcat ccgcgccgac gaggcggcca ccgcgcgcgc ctccgccgac tttggcaacc   240

tctccgtcgc cggcgtcggg gcgcctcggc tcgccgccgc cgtgctctac ccgtcgcgcc   300

ccgccgacat cgccgcgctg ctgcgcgcgt cgtgcgcacg cccggcgccg ttcgcggtgt   360

ccgcgcgggg gtgtggccac tcggtgcgcg gccaggcctc cgcgcccgac ggcgtcgtcg   420

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gggcgcgcat cccgctcgcg ccggcgccgg cgagggcgcg gtgggtgcgg ttcgtgtaca   840

cgacggcggc ggcgatgacg gccgaccagg agcgcctcat cgccgtcgat cgcgccggcg   900

gcgccggcgc ggtgggcggg ctgatggact acgtcgaggg ctcggtccac ctgaaccagg   960

gcctggtcga gacctggcgc acgcagccgc agccgccttc gccgtcctcc tcctcctcct   1020

catccttctt ctccgacgcc gacgaggccc gcgtcgccgc gctcgccaag gaggccggcg   1080

gcgtgctgta tttcctcgag ggcgccatct acttcggcgg cgccgccggg ccgtccgccg   1140

ccgacgttga caagaggatg gatgtgctgc gtcgcgagct gcggcacgag cgcgggttcg   1200

tgttcgcgca ggacgtggcg tacgccgggt cctggaccg cgtccacgac ggcgagctca   1260

agctccgcgc cgcggggctc tgggacgtgc cgcacccatg gctgaacctg ttcctcccc   1320

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gctccggcgt cctcgccttc gccgacggcg tcttccacgg catcctcagc cgcacccccg   1380

ccatgggccc cgtcctcatc taccccatga accgcaacaa gtgggacagt aacatgtcgg   1440

cagtgatcac cgacgacgac ggtgacgagg tgttctacac ggtgggggatc ctgcggtcgg   1500

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gcgaggtggc cgggatagcc tacaagcagt acctgcctta ctacggcagc caggcagagt   1620

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tatgcataca catatgggtg tactgtgcat acgttatagc acactgcagc taattaagct   1860

tgacagggggg agatcgatca atggacaatg ctctagtcaa gctaatataa ataatggagt   1920

agtagtatat atgtagtgcg agataattaa gtagtgtgtt tgcctactaa aaggagaggc   1980

aaagtagtac tgtgatgcat gcatgccaac taataggtga taagtacgtg tgtgtggccg   2040

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<212> PRT
<213> Oryza sativa

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Phe Val Lys Ala Thr Ala Pro Pro Pro Trp Pro Pro Ser Ala Ser Ser
            20                  25                  30


Ala Ser Phe Leu Asp Asp Leu Gly Asp Leu Gly Ile Ala Pro Leu Ile
        35                  40                  45


Arg Ala Asp Glu Ala Ala Thr Ala Arg Ala Ser Ala Asp Phe Gly Asn
    50                  55                  60
```

Leu Ser Val Ala Gly Val Gly Ala Pro Arg Leu Ala Ala Ala Val Leu
65   70   75   80

Tyr Pro Ser Arg Pro Ala Asp Ile Ala Ala Leu Leu Arg Ala Ser Cys
                85   90   95

Ala Arg Pro Ala Pro Phe Ala Val Ser Ala Arg Gly Cys Gly His Ser
            100   105   110

Val Arg Gly Gln Ala Ser Ala Pro Asp Gly Val Val Val Asp Met Ala
        115   120   125

Ser Leu Gly Arg Leu Gln Gly Gly Ala Arg Arg Leu Ala Val Ser
    130   135   140

Val Glu Gly Arg Tyr Val Asp Ala Gly Gly Glu Gln Leu Trp Val Asp
145   150   155   160

Val Leu Arg Ala Ser Met Ala His Gly Leu Thr Pro Val Ser Trp Thr
            165   170   175

Asp Tyr Leu His Leu Thr Val Gly Gly Thr Leu Ser Asn Ala Gly Ile
            180   185   190

Ser Gly Gln Ala Phe Arg His Gly Pro Gln Ile Ser Asn Val Leu Glu
        195   200   205

Leu Asp Val Ile Thr Gly Val Gly Glu Met Val Thr Cys Ser Lys Glu
    210   215   220

Lys Ala Pro Asp Leu Phe Asp Ala Val Leu Gly Gly Leu Gly Gln Phe
225   230   235   240

Gly Val Ile Thr Arg Ala Arg Ile Pro Leu Ala Pro Ala Pro Ala Arg
            245   250   255

Ala Arg Trp Val Arg Phe Val Tyr Thr Thr Ala Ala Ala Met Thr Ala
            260   265   270

Asp Gln Glu Arg Leu Ile Ala Val Asp Arg Ala Gly Gly Ala Gly Ala
        275   280   285

Val Gly Gly Leu Met Asp Tyr Val Glu Gly Ser Val His Leu Asn Gln
290   295   300

Gly Leu Val Glu Thr Trp Arg Thr Gln Pro Gln Pro Pro Ser Pro Ser
305   310   315   320

Ser Ser Ser Ser Ser Ser Phe Phe Ser Asp Ala Asp Glu Ala Arg Val
                325   330   335

Ala Ala Leu Ala Lys Glu Ala Gly Gly Val Leu Tyr Phe Leu Glu Gly
                340   345   350

Ala Ile Tyr Phe Gly Gly Ala Ala Gly Pro Ser Ala Ala Asp Val Asp
            355   360   365

Lys Arg Met Asp Val Leu Arg Arg Glu Leu Arg His Glu Arg Gly Phe
            370   375   380

Val Phe Ala Gln Asp Val Ala Tyr Ala Gly Phe Leu Asp Arg Val His
385   390   395   400

Asp Gly Glu Leu Lys Leu Arg Ala Ala Gly Leu Trp Asp Val Pro His
                405   410   415

Pro Trp Leu Asn Leu Phe Leu Pro Arg Ser Gly Val Leu Ala Phe Ala
            420   425   430

Asp Gly Val Phe His Gly Ile Leu Ser Arg Thr Pro Ala Met Gly Pro
            435   440   445

Val Leu Ile Tyr Pro Met Asn Arg Asn Lys Trp Asp Ser Asn Met Ser
    450   455   460

Ala Val Ile Thr Asp Asp Asp Gly Asp Glu Val Phe Tyr Thr Val Gly
465   470   475   480

Ile Leu Arg Ser Ala Ala Ala Ala Gly Asp Val Gly Arg Leu Glu Glu
                485   490   495

Gln Asn Asp Glu Ile Leu Gly Phe Cys Glu Val Ala Gly Ile Ala Tyr
            500   505   510

Lys Gln Tyr Leu Pro Tyr Tyr Gly Ser Gln Ala Glu Trp Gln Lys Arg
        515   520   525

His Phe Gly Ala Lys Leu Trp Pro Arg Phe Val Gln Arg Lys Ser Lys
        530   535   540

Tyr Asp Pro Lys Ala Ile Leu Ser Arg Gly Gln Gly Ile Phe Thr Ser
545   550   555   560

Pro Leu Ala

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<211> 501
<212> PRT
<213> Arabidopsis thaliana

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1   5   10   15

Thr Lys Ser Ser Asn Gly Ile Lys Ile Asp Leu Pro Lys Ser Leu Asn
        20   25   30

Leu Thr Leu Ser Thr Asp Pro Ser Ile Ile Ser Ala Ala Ser His Asp
        35   40   45

Phe Gly Asn Ile Thr Thr Val Thr Pro Gly Gly Val Ile Cys Pro Ser
        50   55   60

Ser Thr Ala Asp Ile Ser Arg Leu Leu Gln Tyr Ala Ala Asn Gly Lys
65   70   75   80

Ser Thr Phe Gln Val Ala Ala Arg Gly Gln Gly His Ser Leu Asn Gly
                85   90   95

Gln Ala Ser Val Ser Gly Gly Val Ile Val Asn Met Thr Cys Ile Thr
                100   105   110

Asp Val Val Val Ser Lys Asp Lys Lys Tyr Ala Asp Val Ala Ala Gly
        115   120   125

Thr Leu Trp Val Asp Val Leu Lys Lys Thr Ala Glu Lys Gly Val Ser
        130   135   140

Pro Val Ser Trp Thr Asp Tyr Leu His Ile Thr Val Gly Arg Thr Leu
145   150   155   160

Ser Asn Gly Gly Ile Gly Gly Gln Val Phe Arg Asn Gly Pro Leu Val
            165   170   175

Ser Asn Val Leu Glu Leu Asp Val Ile Thr Gly Lys Gly Glu Met Leu
        180   185   190

Thr Cys Ser Arg Gln Leu Asn Pro Glu Leu Phe Tyr Gly Val Leu Gly
        195   200   205

Gly Leu Gly Gln Phe Gly Ile Ile Thr Arg Ala Arg Ile Val Leu Asp
    210   215   220

His Ala Pro Lys Arg Ala Lys Trp Phe Arg Met Leu Tyr Ser Asp Phe
225   230   235   240

Thr Thr Phe Thr Lys Asp Gln Glu Arg Leu Ile Ser Met Ala Asn Asp
            245   250   255

Ile Gly Val Asp Tyr Leu Glu Gly Gln Ile Phe Leu Ser Asn Gly Val
        260   265   270

Val Asp Thr Ser Phe Phe Pro Pro Ser Asp Gln Ser Lys Val Ala Asp
        275   280   285

Leu Val Lys Gln His Gly Ile Ile Tyr Val Leu Glu Val Ala Lys Tyr
    290   295   300

Tyr Asp Asp Pro Asn Leu Pro Ile Ile Ser Lys Val Ile Asp Thr Leu
305   310   315   320

Thr Lys Thr Leu Ser Tyr Leu Pro Gly Phe Ile Ser Met His Asp Val
            325   330   335

Ala Tyr Phe Asp Phe Leu Asn Arg Val His Val Glu Glu Asn Lys Leu
            340   345   350

Arg Ser Leu Gly Leu Trp Glu Leu Pro His Pro Trp Leu Asn Leu Tyr
        355   360   365

```
Val Pro Lys Ser Arg Ile Leu Asp Phe His Asn Gly Val Val Lys Asp
    370             375             380

Ile Leu Leu Lys Gln Lys Ser Ala Ser Gly Leu Ala Leu Leu Tyr Pro
385             390             395             400

Thr Asn Arg Asn Lys Trp Asp Asn Arg Met Ser Ala Met Ile Pro Glu
                405             410             415

Ile Asp Glu Asp Val Ile Tyr Ile Ile Gly Leu Leu Gln Ser Ala Thr
            420             425             430

Pro Lys Asp Leu Pro Glu Val Glu Ser Val Asn Glu Lys Ile Ile Arg
        435             440             445

Phe Cys Lys Asp Ser Gly Ile Lys Ile Lys Gln Tyr Leu Met His Tyr
    450             455             460

Thr Ser Lys Glu Asp Trp Ile Glu His Phe Gly Ser Lys Trp Asp Asp
465             470             475             480

Phe Ser Lys Arg Lys Asp Leu Phe Asp Pro Lys Lys Leu Leu Ser Pro
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Gly Gln Asp Ile Phe
            500
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<211> 523
<212> PRT
<213> Arabidopsis thaliana

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Ile Val Ile Ile Ile Thr Leu Ser Thr Pro Ile Thr Thr Asn Thr Ser
            20              25              30

Pro Gln Pro Trp Asn Ile Leu Ser His Asn Glu Phe Ala Gly Lys Leu
        35              40              45

Thr Ser Ser Ser Ser Ser Val Glu Ser Ala Ala Thr Asp Phe Gly His
    50              55              60
```

Val Thr Lys Ile Phe Pro Ser Ala Val Leu Ile Pro Ser Ser Val Glu
65   70   75   80

Asp Ile Thr Asp Leu Ile Lys Leu Ser Phe Asp Ser Gln Leu Ser Phe
                85   90   95

Pro Leu Ala Ala Arg Gly His Gly His Ser His Arg Gly Gln Ala Ser
            100   105   110

Ala Lys Asp Gly Val Val Val Asn Met Arg Ser Met Val Asn Arg Asp
        115   120   125

Arg Gly Ile Lys Val Ser Arg Thr Cys Leu Tyr Val Asp Val Asp Ala
    130   135   140

Ala Trp Leu Trp Ile Glu Val Leu Asn Lys Thr Leu Glu Leu Gly Leu
145   150   155   160

Thr Pro Val Ser Trp Thr Asp Tyr Leu Tyr Leu Thr Val Gly Gly Thr
            165   170   175

Leu Ser Asn Gly Gly Ile Ser Gly Gln Thr Phe Arg Tyr Gly Pro Gln
        180   185   190

Ile Thr Asn Val Leu Glu Met Asp Val Ile Thr Gly Lys Gly Glu Ile
        195   200   205

Ala Thr Cys Ser Lys Asp Met Asn Ser Asp Leu Phe Phe Ala Val Leu
    210   215   220

Gly Gly Leu Gly Gln Phe Gly Ile Ile Thr Arg Ala Arg Ile Lys Leu
225   230   235   240

Glu Val Ala Pro Lys Arg Ala Lys Trp Leu Arg Phe Leu Tyr Ile Asp
            245   250   255

Phe Ser Glu Phe Thr Arg Asp Gln Glu Arg Val Ile Ser Lys Thr Asp
            260   265   270

Gly Val Asp Phe Leu Glu Gly Ser Ile Met Val Asp His Gly Pro Pro
        275   280   285

```
Asp Asn Trp Arg Ser Thr Tyr Tyr Pro Pro Ser Asp His Leu Arg Ile
    290             295             300

Ala Ser Met Val Lys Arg His Arg Val Ile Tyr Cys Leu Glu Val Val
305             310             315                 320

Lys Tyr Tyr Asp Glu Thr Ser Gln Tyr Thr Val Asn Glu Glu Met Glu
            325             330                 335

Glu Leu Ser Asp Ser Leu Asn His Val Arg Gly Phe Met Tyr Glu Lys
            340             345             350

Asp Val Thr Tyr Met Asp Phe Leu Asn Arg Val Arg Thr Gly Glu Leu
        355             360             365

Asn Leu Lys Ser Lys Gly Gln Trp Asp Val Pro His Pro Trp Leu Asn
    370             375             380

Leu Phe Val Pro Lys Thr Gln Ile Ser Lys Phe Asp Asp Gly Val Phe
385             390             395                 400

Lys Gly Ile Ile Leu Arg Asn Asn Ile Thr Ser Gly Pro Val Leu Val
            405             410             415

Tyr Pro Met Asn Arg Asn Lys Trp Asn Asp Arg Met Ser Ala Ala Ile
        420             425             430

Pro Glu Glu Asp Val Phe Tyr Ala Val Gly Phe Leu Arg Ser Ala Gly
    435             440             445

Phe Asp Asn Trp Glu Ala Phe Asp Gln Glu Asn Met Glu Ile Leu Lys
    450             455             460

Phe Cys Glu Asp Ala Asn Met Gly Val Ile Gln Tyr Leu Pro Tyr His
465             470             475                 480

Ser Ser Gln Glu Gly Trp Val Arg His Phe Gly Pro Arg Trp Asn Ile
            485             490             495

Phe Val Glu Arg Lys Tyr Lys Tyr Asp Pro Lys Met Ile Leu Ser Pro
            500             505             510
```

Gly Gln Asn Ile Phe Gln Lys Ile Asn Ser Ser
        515   520

<210> 9
<211> 524
<212> PRT
<213> Arabidopsis thaliana

<400> 9
Met Thr Asn Thr Leu Cys Leu Ser Leu Ile Thr Leu Ile Thr Phe Phe
1   5   10   15

Ile Ser Leu Thr Pro Thr Leu Ile Lys Ser Asp Glu Gly Ile Asp Val
            20   25   30

Phe Leu Pro Ile Ser Leu Asn Leu Thr Val Leu Thr Asp Pro Phe Ser
            35   40   45

Ile Ser Ala Ala Ser His Asp Phe Gly Asn Ile Thr Asp Glu Asn Pro
        50   55   60

Gly Ala Val Leu Cys Pro Ser Ser Thr Thr Glu Val Ala Arg Leu Leu
65   70   75   80

Arg Phe Ala Asn Gly Gly Phe Ser Tyr Asn Lys Gly Ser Thr Ser Pro
                85   90   95

Ala Ser Thr Phe Lys Val Ala Ala Arg Gly Gln Gly His Ser Leu Arg
                100   105   110

Gly Gln Ala Ser Ala Pro Gly Gly Val Val Val Asn Met Thr Cys Leu
            115   120   125

Ala Met Ala Ala Lys Pro Ala Ala Val Val Ile Ser Ala Asp Gly Thr
            130   135   140

Tyr Ala Asp Val Ala Ala Gly Thr Met Trp Val Asp Val Leu Lys Ala
145   150   155   160

Ala Val Asp Arg Gly Val Ser Pro Val Thr Trp Thr Asp Tyr Leu Tyr
                165   170   175

Leu Ser Val Gly Gly Thr Leu Ser Asn Ala Gly Ile Gly Gly Gln Thr
                180   185   190

```
Phe Arg His Gly Pro Gln Ile Ser Asn Val His Glu Leu Asp Val Ile
        195             200             205

Thr Gly Lys Gly Glu Met Met Thr Cys Ser Pro Lys Leu Asn Pro Glu
    210             215             220

Leu Phe Tyr Gly Val Leu Gly Gly Leu Gly Gln Phe Gly Ile Ile Thr
225             230             235             240

Arg Ala Arg Ile Ala Leu Asp His Ala Pro Thr Arg Val Lys Trp Ser
            245             250             255

Arg Ile Leu Tyr Ser Asp Phe Ser Ala Phe Lys Arg Asp Gln Glu Arg
            260             265             270

Leu Ile Ser Met Thr Asn Asp Leu Gly Val Asp Phe Leu Glu Gly Gln
        275             280             285

Leu Met Met Ser Asn Gly Phe Val Asp Thr Ser Phe Phe Pro Leu Ser
        290             295             300

Asp Gln Thr Arg Val Ala Ser Leu Val Asn Asp His Arg Ile Ile Tyr
305             310             315             320

Val Leu Glu Val Ala Lys Tyr Tyr Asp Arg Thr Thr Leu Pro Ile Ile
            325             330             335

Asp Gln Val Ile Asp Thr Leu Ser Arg Thr Leu Gly Phe Ala Pro Gly
            340             345             350

Phe Met Phe Val Gln Asp Val Pro Tyr Phe Asp Phe Leu Asn Arg Val
        355             360             365

Arg Asn Glu Glu Asp Lys Leu Arg Ser Leu Gly Leu Trp Glu Val Pro
    370             375             380

His Pro Trp Leu Asn Ile Phe Val Pro Gly Ser Arg Ile Gln Asp Phe
385             390             395             400

His Asp Gly Val Ile Asn Gly Leu Leu Leu Asn Gln Thr Ser Thr Ser
            405             410             415
```

```
Gly Val Thr Leu Phe Tyr Pro Thr Asn Arg Asn Lys Trp Asn Asn Arg
            420                 425             430

Met Ser Thr Met Thr Pro Asp Glu Asp Val Phe Tyr Val Ile Gly Leu
            435                 440             445

Leu Gln Ser Ala Gly Gly Ser Gln Asn Trp Gln Glu Leu Glu Asn Leu
            450                 455             460

Asn Asp Lys Val Ile Gln Phe Cys Glu Asn Ser Gly Ile Lys Ile Lys
465                 470                 475             480

Glu Tyr Leu Met His Tyr Thr Arg Lys Glu Asp Trp Val Lys His Phe
                485                 490             495

Gly Pro Lys Trp Asp Asp Phe Leu Arg Lys Lys Ile Met Phe Asp Pro
            500                 505             510

Lys Arg Leu Leu Ser Pro Gly Gln Asp Ile Phe Asn
            515                 520
```

```
<210> 10
<211> 533
<212> PRT
<213> Oryza sativa

<400> 10
Met Ala Ala Ile Tyr Leu Leu Ile Ala Ala Leu Ile Ala Ser Ser His
1               5               10              15

Ala Leu Ala Ala His Gly Ala Gly Gly Val Pro Leu Ala Ala Ala
            20              25              30

Ala Pro Leu Pro Phe Pro Gly Asp Leu Ala Ala Ser Gly Lys Leu Arg
            35              40              45

Thr Asp Pro Asn Ala Thr Val Pro Ala Ser Met Asp Phe Gly Asn Ile
    50              55              60

Thr Ala Ala Leu Pro Ala Ala Val Leu Phe Pro Gly Ser Pro Gly Asp
65              70              75              80

Val Ala Glu Leu Leu Arg Ala Ala Tyr Ala Ala Pro Gly Arg Pro Phe
            85              90              95
```

```
Thr Val Ser Phe Arg Gly Arg Gly His Ser Thr Met Gly Gln Ala Leu
            100             105             110

Ala Ala Gly Gly Val Val Val His Met Gln Ser Met Gly Gly Gly Gly
            115             120             125

Ala Pro Arg Ile Asn Val Ser Ala Asp Gly Ala Tyr Val Asp Ala Gly
            130             135             140

Gly Glu Gln Leu Trp Val Asp Val Leu Arg Ala Ala Leu Ala Arg Gly
145             150             155             160

Val Ala Pro Arg Ser Trp Thr Asp Tyr Leu His Leu Thr Val Gly Gly
            165             170             175

Thr Leu Ser Asn Ala Gly Val Ser Gly Gln Thr Tyr Arg His Gly Pro
            180             185             190

Gln Ile Ser Asn Val Leu Glu Leu Asp Val Ile Thr Gly His Gly Glu
            195             200             205

Thr Val Thr Cys Ser Lys Ala Val Asn Ser Asp Leu Phe Asp Ala Val
            210             215             220

Leu Gly Gly Leu Gly Gln Phe Gly Val Ile Thr Arg Ala Arg Val Ala
225             230             235             240

Val Glu Pro Ala Pro Ala Arg Ala Arg Trp Val Arg Leu Val Tyr Ala
            245             250             255

Asp Phe Ala Ala Phe Ser Ala Asp Gln Glu Arg Leu Val Ala Ala Arg
            260             265             270

Pro Asp Gly Ser His Gly Pro Trp Ser Tyr Val Glu Gly Ala Val Tyr
            275             280             285

Leu Ala Gly Arg Gly Leu Ala Val Ala Leu Lys Ser Ser Gly Gly Phe
            290             295             300

Phe Ser Asp Ala Asp Ala Ala Arg Val Val Ala Leu Ala Ala Ala Arg
305             310             315             320
```

Asn Ala Thr Ala Val Tyr Ser Ile Glu Ala Thr Leu Asn Tyr Ala Ala
                325   330   335

Asn Ala Thr Pro Ser Ser Val Asp Ala Ala Val Ala Ala Ala Leu Gly
                340   345   350

Asp Ala Leu His Phe Glu Glu Gly Phe Ser Phe Ser Arg Asp Val Thr
                355   360   365

Tyr Glu Glu Phe Leu Asp Arg Val Tyr Gly Glu Glu Glu Ala Leu Glu
    370   375   380

Lys Ala Gly Leu Trp Arg Val Pro His Pro Trp Leu Asn Leu Phe Val
385   390   395   400

Pro Gly Ser Arg Ile Ala Asp Phe Asp Arg Gly Val Phe Lys Gly Ile
                405   410   415

Leu Gln Thr Ala Thr Asp Ile Ala Gly Pro Leu Ile Ile Tyr Pro Val
                420   425   430

Asn Lys Ser Lys Trp Asp Ala Ala Met Ser Ala Val Thr Pro Glu Gly
                435   440   445

Glu Glu Glu Val Phe Tyr Val Val Ser Leu Leu Phe Ser Ala Val Ala
    450   455   460

Asn Asp Val Ala Ala Leu Glu Ala Gln Asn Arg Arg Ile Leu Arg Phe
465   470   475   480

Cys Asp Leu Ala Gly Ile Gly Tyr Lys Ala Tyr Leu Ala His Tyr Asp
                485   490   495

Ser Arg Gly Asp Trp Val Arg His Phe Gly Ala Lys Trp Asp Arg Phe
                500   505   510

Val Gln Arg Lys Asp Lys Tyr Asp Pro Lys Lys Leu Leu Ser Pro Gly
                515   520   525

Gln Asp Ile Phe Asn
    530

<210> 11
<211> 558
<212> PRT
<213> Oryza sativa

<400> 11
Met Ala Val Leu Leu Met Leu Asn Cys Phe Val Lys Ala Thr Ala Pro
1   5   10   15

Pro Pro Trp Pro Pro Ser Ala Ser Ser Ala Ser Phe Leu Asp Asp Leu
            20   25   30

Gly Asp Leu Gly Ile Ala Pro Leu Ile Arg Ala Asp Glu Ala Gly Thr
        35   40   45

Ala Arg Ala Ser Ala Asp Phe Gly Asn Leu Ser Val Ala Gly Val Gly
    50   55   60

Ala Pro Arg Leu Ala Ala Ala Ala Ala Val Leu Tyr Pro Ser Arg Pro
65   70   75   80

Ala Asp Ile Ala Ala Leu Leu Arg Ala Ser Cys Ala Arg Pro Ala Pro
            85   90   95

Phe Ala Val Ser Ala Arg Gly Cys Gly His Ser Val His Gly Gln Ala
            100   105   110

Ser Ala Pro Asp Gly Val Val Val Asp Met Ala Ser Leu Gly Arg Leu
        115   120   125

Gln Gly Gly Gly Ala Arg Arg Leu Ala Val Ser Val Glu Gly Arg Tyr
    130   135   140

Val Asp Ala Gly Gly Glu Gln Leu Trp Val Asp Val Leu Arg Ala Ser
145   150   155   160

Met Ala His Gly Leu Thr Pro Val Ser Trp Thr Asp Tyr Leu His Leu
            165   170   175

Thr Val Gly Gly Thr Leu Ser Asn Ala Gly Ile Ser Gly Gln Ala Phe
            180   185   190

Arg His Gly Pro Gln Ile Ser Asn Val Leu Glu Leu Asp Val Ile Thr
    195   200   205

Gly Val Gly Glu Met Val Thr Cys Ser Lys Glu Lys Ala Pro Asp Leu
    210   215   220

Phe Asp Ala Val Leu Gly Gly Leu Gly Gln Phe Gly Val Ile Thr Arg
225   230   235   240

Ala Arg Ile Pro Leu Ala Pro Ala Pro Ala Arg Ala Arg Trp Val Arg
            245   250   255

Phe Val Tyr Thr Thr Ala Ala Ala Met Thr Ala Asp Gln Glu Arg Leu
          260   265   270

Ile Ala Val Asp Arg Ala Gly Gly Ala Gly Ala Val Gly Gly Leu Met
        275   280   285

Asp Tyr Val Glu Gly Ser Val His Leu Asn Gln Gly Leu Val Glu Thr
      290   295   300

Trp Arg Thr Gln Pro Gln Pro Pro Ser Pro Ser Ser Ser Ser Ser Ser
305   310   315   320

Ser Phe Phe Ser Asp Ala Asp Glu Ala Arg Val Ala Ala Leu Ala Lys
          325   330   335

Glu Ala Gly Gly Val Leu Tyr Phe Leu Glu Gly Ala Ile Tyr Phe Gly
        340   345   350

Gly Ala Ala Gly Pro Ser Ala Ala Asp Val Asp Lys Arg Met Asp Val
        355   360   365

Leu Arg Arg Glu Leu Arg His Glu Arg Gly Phe Val Phe Ala Gln Asp
        370   375   380

Val Ala Tyr Ala Gly Phe Leu Asp Arg Val His Asp Gly Glu Leu Lys
385   390   395   400

Leu Arg Ala Ala Gly Leu Trp Asp Val Pro His Pro Trp Leu Asn Leu
          405   410   415

Phe Leu Pro Arg Ser Gly Val Leu Ala Phe Ala Asp Gly Val Phe His
          420   425   430

Gly Ile Leu Ser Arg Thr Pro Ala Met Gly Pro Val Leu Ile Tyr Pro
     435   440   445

Met Asn Arg Asn Lys Trp Asp Ser Asn Met Ser Ala Val Ile Thr Asp
     450   455   460

Asp Asp Gly Asp Glu Val Phe Tyr Thr Val Gly Ile Leu Arg Ser Ala
465   470   475   480

Ala Ala Ala Gly Asp Val Gly Arg Leu Glu Glu Gln Asn Asp Glu Ile
            485   490   495

Leu Gly Phe Cys Glu Val Ala Gly Ile Ala Tyr Lys Gln Tyr Leu Pro
          500   505   510

Tyr Tyr Gly Ser Gln Ala Glu Trp Gln Lys Arg His Phe Gly Ala Asn
        515   520   525

Leu Trp Pro Arg Phe Val Gln Arg Lys Ser Lys Tyr Asp Pro Lys Ala
      530   535   540

Ile Leu Ser Arg Gly Gln Gly Ile Phe Thr Ser Pro Leu Ala
545   550   555

<210> 12
<211> 527
<212> PRT
<213> Oryza sativa

<400> 12
Met Ala Ala Arg Cys Ser Ile Ala Phe Met Val Met Ala Ser Cys Leu
1   5   10   15

Ser Val Val Val Ser Gly Gly Leu Pro Gly Asp Leu Phe Ala His Ser
        20   25   30

Val Ala Ser Lys Leu Arg Val Asp Arg Asp Thr Thr Ala Arg Ala Ser
      35   40   45

Ser Asp Phe Gly Arg Ile Val Ala Ala Ala Pro Glu Ala Val Leu His
      50   55   60

Pro Ala Thr Pro Ala Glu Ile Ala Glu Leu Val Arg Phe Ser Ala Ser
65   70   75   80

Ser Pro Ser Pro Phe Pro Val Ala Pro Arg Gly Gln Gly His Ser Ala
                85   90   95

Arg Gly Gln Ser Leu Ala Pro Gly Gly Val Val Val Asp Met Arg Ala
            100   105   110

Leu Ala Ala Arg Arg Gly Arg Val Asn Val Ser Ala Gly Gly Ala Gly
        115   120   125

Ala Ala Pro Tyr Val Asp Ala Gly Gly Glu Gln Leu Trp Ala Asp Val
    130   135   140

Leu Arg Ala Thr Leu Glu His Gly Leu Ala Pro Arg Val Trp Thr Asp
145   150   155   160

Tyr Leu Arg Ile Thr Val Ala Gly Thr Leu Ser Asn Ala Gly Ile Gly
            165   170   175

Gly Gln Ala Phe Arg His Gly Pro Gln Ile Ala Asn Val Leu Glu Leu
            180   185   190

Asp Val Ile Thr Gly Arg Gly Asp Met Val Thr Cys Ser Arg Asp Lys
        195   200   205

Glu Pro Asp Leu Phe Phe Ala Val Leu Gly Gly Leu Gly Gln Phe Gly
    210   215   220

Ile Ile Thr Arg Ala Arg Ile Gly Leu Glu Pro Ala Pro Lys Arg Val
225   230   235   240

Arg Trp Val Arg Leu Ala Tyr Ser Asp Val Val Thr Phe Thr Arg Asp
            245   250   255

Gln Glu Leu Leu Ile Ser Lys Arg Ala Ser Glu Ala Gly Phe Asp Tyr
            260   265   270

Val Glu Gly Gln Val Gln Leu Asn Arg Thr Leu Thr Glu Gly Pro Lys
        275   280   285

Ser Thr Pro Phe Phe Ser Arg Phe Asp Ile Asp Arg Leu Ala Gly Leu
    290   295   300

```
Ala Ser Glu Ser Val Ser Gly Val Ile Tyr Phe Ile Glu Gly Ala Met
305             310             315                 320

Tyr Tyr Asn Glu Ser Thr Thr Ala Ser Val Asp Gln Lys Leu Thr Ser
                325             330                 335

Val Leu Glu Gln Leu Ser Phe Asp Lys Gly Phe Val Phe Thr Lys Asp
            340             345                 350

Val Ser Tyr Val Gln Phe Leu Asp Arg Val Arg Glu Glu Glu Arg Ile
            355             360                 365

Leu Arg Ser Ile Gly Met Trp Asp Val Pro His Pro Trp Leu Asn Leu
        370             375                 380

Phe Val Pro Gln Ser Arg Ile Leu Asp Phe Asp Thr Gly Val Leu Lys
385             390             395                 400

Gly Val Phe Val Gly Ala Asn Pro Val Gly Val Ile Leu Met Tyr Pro
                405             410                 415

Met Asn Arg Asn Met Trp Asp Asp Arg Met Thr Ala Val Ser Gly Asn
            420             425                 430

Asp Asp Met Phe Tyr Val Val Gly Leu Leu Arg Ser Ala Val Val Pro
            435             440                 445

Gly Asp Val Glu Arg Leu Glu Arg Glu Asn Glu Ala Val Leu Ala Phe
        450             455                 460

Cys Asp Asn Glu Gly Ile Gly Cys Lys Gln Tyr Leu Pro His Tyr Ala
465                 470             475                 480

Ser Gln Asp Gly Trp Arg Ser His Phe Gly Ala Lys Trp Ser Arg Val
                485             490                 495

Thr Glu Leu Lys Val Lys Tyr Asp Pro Tyr Gly Ile Leu Ser Pro Gly
            500             505                 510

Gln Arg Ile Phe Ser Ser Leu Thr Pro Met Ala Leu Val Ala Met
            515             520                 525
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```
<210> 13
<211> 524
<212> PRT
<213> Oryza sativa

<400> 13
Met Ala Ala Arg Cys Ser Ile Ala Phe Met Ile Met Ala Ser Cys Leu
1               5                   10                  15


Ser Val Val Val Ser Gly Gly Leu Pro Gly Asp Leu Phe Ala Leu Ser
            20                  25                  30


Val Ala Ser Lys Leu Arg Val Asp Arg Asn Ser Thr Ala Arg Ala Ser
        35                  40                  45


Ser Asp Phe Gly Arg Ile Val Ala Ala Pro Glu Ala Val Leu His
    50                  55                  60


Pro Ala Thr Pro Ala Glu Ile Ala Glu Leu Val Arg Phe Ser Ala Ser
65                  70                  75                  80


Ser Pro Ser Pro Phe Pro Val Ala Pro Arg Gly Gln Gly His Ser Ala
                85                  90                  95


Arg Gly Gln Ser Leu Ala Pro Gly Gly Val Val Val Asp Met Arg Ala
                100                 105                 110


Leu Ala Ser Arg Arg Gly Arg Val Asn Val Ser Ala Gly Ala Ala Pro
            115                 120                 125


Tyr Val Asp Ala Gly Gly Glu Gln Leu Trp Ala Asp Val Leu Arg Ala
    130                 135                 140


Thr Leu Glu His Gly Leu Ala Pro Arg Val Trp Thr Asp Tyr Leu Arg
145                 150                 155                 160


Ile Thr Val Ala Gly Thr Leu Ser Asn Ala Gly Ile Gly Gly Gln Ala
                165                 170                 175


Phe Arg His Gly Pro Gln Ile Ala Asn Val Leu Glu Leu Asp Val Ile
            180                 185                 190


Thr Gly Thr Gly Asp Met Val Thr Cys Ser Arg Asp Lys Asp Ser Asp
            195                 200                 205
```

Leu Phe Phe Ala Val Leu Gly Gly Leu Gly Gln Phe Gly Ile Ile Thr
    210   215   220

Arg Ala Arg Ile Gly Leu Met Pro Ala Pro Lys Arg Val Arg Trp Val
225   230   235   240

Arg Leu Ala Tyr Ser Asp Val Ala Thr Phe Thr Lys Asp Gln Glu Leu
                245   250   255

Leu Ile Ser Lys Arg Ala Ser Glu Ala Gly Phe Asp Tyr Val Glu Gly
            260   265   270

Gln Val Gln Leu Asn Arg Thr Leu Thr Glu Gly Pro Lys Ser Thr Pro
            275   280   285

Phe Phe Ser Ser Ser Asp Ile Gly Arg Leu Ala Gly Leu Ala Ser Lys
    290   295   300

Ser Val Ser Gly Val Ile Tyr Val Ile Glu Gly Thr Met Tyr Tyr Asn
305   310   315   320

Glu Ser Thr Ser Thr Thr Met Asp Gln Lys Leu Glu Ser Ile Leu Gly
                325   330   335

Gln Leu Ser Phe Glu Glu Gly Phe Val Phe Thr Lys Asp Val Arg Tyr
            340   345   350

Val Gln Phe Leu Asp Arg Val Arg Glu Glu Glu Arg Val Leu Arg Ser
    355   360   365

Ile Gly Met Trp Asp Val Pro His Pro Trp Leu Asn Leu Phe Val Pro
    370   375   380

Arg Ser Arg Ile Leu Asp Phe Asp Ala Gly Val Phe Lys Gly Val Phe
385   390   395   400

Ala Gly Ala Asn Pro Val Gly Val Ile Leu Met Tyr Pro Met Asn Thr
                405   410   415

Asn Met Trp Asp Asp Cys Met Met Ala Val Ala Ser Asp Asp Asp Val
            420   425   430

```
Phe Tyr Ala Val Gly Leu Leu Arg Ser Ala Ala Val Ile Gly Asp Val
        435             440             445

Glu Arg Leu Glu Lys Glu Asn Glu Ala Val Leu Ala Phe Cys His Asn
    450             455             460

Glu Asp Ile Gly Cys Lys Gln Tyr Leu Pro Tyr Tyr Thr Ser Gln Asp
465             470             475             480

Gly Trp Gln Arg His Phe Gly Ala Lys Trp Ser Arg Val Ala Asp Leu
                485             490             495

Lys Ala Lys Tyr Asp Pro His Arg Ile Leu Ser Pro Gly Gln Arg Ile
            500             505             510

Phe Ser Ser Pro Ala Ser Met Val Val Val Ser Met
        515             520
```

```
<210> 14
<211> 528
<212> PRT
<213> Oryza sativa

<400> 14
Met Pro Arg Ala Gln Leu Thr Thr Phe Leu Ile Val Thr Ser Phe Leu
1               5               10              15

Ser Thr Val Pro Tyr Leu Arg Ala Pro Val His Gly Gly Val Leu Thr
            20              25              30

Ser Tyr Asp Val Ser Ser Leu Asp Ile Met Ser Lys Ile His Thr Asp
        35              40              45

His Asp Ala Thr Thr Lys Ala Ser Ser Asp Phe Gly His Ile Val His
    50              55              60

Ala Thr Pro Asn Gly Val Phe Arg Pro Thr Phe Pro Ala Asp Ile Ala
65              70              75              80

Ala Leu Ile Arg Leu Ser Leu Ser Gln Pro Thr Pro Phe Thr Val Ala
            85              90              95

Pro Arg Gly Lys Gly His Ser Ser Arg Gly Gln Ala Phe Ala Pro Gly
            100             105             110
```

Gly Ile Val Val Asp Met Ser Ala Leu Gly Asp His Gly His His Thr
    115   120   125

Ser His Arg Ile Asp Val Ser Val Asp Arg Met Tyr Val Asp Ala Gly
   130   135   140

Gly Glu Gln Leu Trp Ile Asp Val Leu His Thr Ala Leu Lys His Gly
145   150   155   160

Leu Thr Pro Arg Val Trp Thr Asp Tyr Leu Arg Ile Thr Val Gly Gly
          165   170   175

Thr Leu Ser Asn Ala Gly Ile Gly Gly Gln Ala Phe Arg His Gly Pro
        180   185   190

Gln Ile Ser Asn Val His Glu Leu Asp Val Val Thr Gly Gly Leu Gly
       195   200   205

Gln Phe Gly Val Ile Thr Arg Ala Arg Ile Arg Leu Glu Pro Ala Pro
   210   215   220

Lys Arg Val Lys Trp Val Arg Ile Ala Tyr Ser Asp Val His Pro Phe
225   230   235   240

Thr Thr Asp Gln Glu Leu Leu Ile Ser Lys Trp Ala Ser Gly Ser Gly
        245   250   255

Phe Asp Tyr Val Glu Gly Gln Val Gln Leu Asn Arg Thr Leu Thr Gln
        260   265   270

Gly Arg Arg Ser Ser Ser Phe Phe Ser Ala Thr Asp Leu Ala Arg Leu
        275   280   285

Thr Gly Leu Ala Ile Asp Thr Gly Ser Val Ala Ile Tyr Tyr Ile Glu
      290   295   300

Gly Ala Met Tyr Tyr Asp Asp Asn Thr Ala Ala Ser Val Asp Gln Lys
305   310   315   320

Leu Asp Ala Leu Leu Glu Glu Leu Ser Phe Val Arg Gly Phe Val Phe
        325   330   335

Val Arg Asp Ala Ser Tyr Val Glu Phe Leu Asp Arg Val Gly Arg Glu
            340   345   350

Glu Gln Asn Leu Arg Ser Ala Gly Ala Trp Asp Val Pro His Pro Trp
            355   360   365

Leu Asn Leu Phe Val Pro Arg Ser Arg Ile Leu His Phe Asp Ala Ala
        370   375   380

Val Phe Lys Gly Ile Leu Arg Asn Ala Asn Pro Val Gly Leu Ile Leu
385   390   395   400

Met Tyr Pro Met Asn Lys Asp Met Trp Asp Asp Arg Met Thr Ala Met
                405   410   415

Thr Pro Asp Glu Asp Val Phe Tyr Ala Val Gly Leu Leu Arg Ser Ala
            420   425   430

Val Ala Gly Gly Ser Gly Gly Asp Val Glu Gln Leu Glu Arg Glu Asn
        435   440   445

Ala Ala Val Leu Glu Leu Cys Asp Leu Ala Gly Gly Gly Ile Gly Cys
    450   455   460

Arg Gln Tyr Leu Pro His His Ala Ser Arg Asp Gly Trp Arg Arg His
465   470   475   480

Phe Gly Ala Lys Trp Gly Arg Val Ala Asp Leu Lys Ala Arg Tyr Asp
                485   490   495

Pro Arg Ala Ile Leu Ser Pro Gly Gln Gly Ile Phe Pro Pro Pro Pro
            500   505   510

Pro Pro Ser Pro Pro Pro Pro Ala Ala Gly Glu Pro Ile Thr Ala Ser
            515   520   525